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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/305,789	05/04/1999	ALAN GERRARD	ARELP102	2642
21912	7590	03/09/2005		
VAN PELT, YI & JAMES LLP 10050 N. FOOTHILL BLVD #200 CUPERTINO, CA 95014			EXAMINER PENDLETON, BRIAN T	
			ART UNIT	PAPER NUMBER
			2644	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/305,789

Applicant(s)

GERRARD ET AL.

Examiner

Brian T. Pendleton

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 7-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Group I in the reply filed on 11/4/04 is acknowledged.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because they are illegible. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakagawa, US Patent 6,760,050. Nakagawa disclose a three-dimensional sound pattern generator comprising video block 11 having video display processors 120, 130; sound block 12 having

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DSP 140, CPU block 10, operation device 2, display 3 and speakers 4. A video game resides on CD-ROM 5 in sub-system 13. The method of Nakagawa discloses receiving a subset of polygons derived for an acoustic display from a set of polygons generated for a graphical display (which is illustrated in figure 6). Figure 2 discloses a sound pattern generator which has object information storing means 202 for storing physical information of the polygons in the virtual three-dimensional space in figure 6 (see column 5 lines 54-65 and column 7 lines 55-65). The acoustic reflections from a sound source (shooting sound of the sound source object of the player character) are determined in figure 3 in response to user input and a play list of sound based on the reflections is generated. In addition, figure 4 illustrates the sound pattern processing of a sound marker such as 412 in figure 6. The processing method comprises step S404 which reads the property of an object occluding the sound path from the sound maker 412 to the player 410 and if it is a sound reflecting objection (step S405), the sound produced by the sound maker 412 is eventually attenuated. This method reads on determining whether a polygon in the subset of polygons causes an occlusion of the sound source at the listener position and generating a play list of sounds based on the reflections and occlusions. Claim 1 is met. As to claim 3, the system receives a set of polygons generated for a graphical display and has a first and second subset of polygons for acoustic display in figure 6. Acoustic reflections are determined for the walls, ceilings, doors and hallways, any of the objects comprising the first subset of polygons. Occlusion determination is done for the remaining walls, doors, ceilings and hallways, and a play of list of sounds are generated based on the reflections and occlusions.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Okabe et al, US Patent 6,572,475. Nakagawa does not disclose that the subset of polygons derived for acoustic display are derived by applying a size filter. Okabe et al disclose a device and method for synchronizing audio and video in computer games. The device displays sound source objects on a screen and produce sound related to the sound source object based on a display and audio parameter of the sound source object. Column 10 lines 17-26 suggested that sound source objects that overlap are subject to priority whereby one sound source object is ignored. Therefore, Okabe taught applying a size filter to the number of polygons derived from the set of polygons generated for graphical display. It would have been obvious to one of ordinary skill in the art at the time of invention to modify Nakagawa to use a size filter, as taught by Okabe, in order to reduce the number of acoustic polygons used for audio signal processing for the purpose of speeding up processing time. Claims 2 and 5 are met. As to claim 4, it was obvious to have a smaller subset of acoustic polygons than graphical polygons since not all graphical objects created or transmitted a sound source.

Allowable Subject Matter

Claim 6 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian T. Pendleton whose telephone number is (703) 305-9509. The examiner can normally be reached on M-F 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (703) 305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brian T. Pendleton
Examiner
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